

DO NOT OPEN THIS TEST BOOKLET TILL YOU ARE ASKED TO DO SO

TR/DLTI/ARCH/P-II/17

**TEST BOOKLET
GENERAL ABILITY TEST**

Test Booklet Series

(Signature of the Candidate)

(PART- II)
(Architect Engineering)



(Invigilator's Signature)

Time Allowed : 1 hour 30 minutes (One hour thirty minutes)

Maximum Marks : 60

I N S T R U C T I O N S

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE SCREENING TEST, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. **ENCODE CLEARLY THE TEST BOOKLET SERIES IN THE APPROPRIATE PLACE IN THE ANSWER SHEET BY BLACK BALL POINT PEN ONLY.**
3. This Test Booklet contains 60 items (questions). Each question, carrying 1 (one) mark only, has four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the most appropriate. In any case, choose **ONLY ONE** response for each item.
4. You have to mark all your responses by **Black Ball Point Pen only** on the separate Answer Sheet provided. See directions in the Answer Sheet.
5. All items carry equal marks.
6. Before you proceed to mark in the Answer Sheet the responses to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet.
7. After you have completed filling in responses on the Answer Sheet and the Screening Test is completed, you should handover the Answer Sheet to the Invigilator only. You are permitted to take the Test Booklet with you.
8. Sheets for rough work are appended on the Test Booklet at the end.
9. **Penalty for wrong answers :**
 - (a) There will be four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
 - (b) If a candidate gives more than one answer, it will be treated as a **Wrong Answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
 - (c) If a question is left blank, i.e. no answer is given by the candidate, there will be **no penalty** for that question.

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Four options are given against each of the following questions. Select the best/correct option from among the four options and encode in the answer sheet by using **Black Ball Point Pen** only as per example given below :

Example : The capital of India is

(A) Delhi

☒ New Delhi

(C) Indraprastha

(D) None of these

1. The 'Pitot tube' is used to measure
 - (A) Wind velocity
 - (B) Precipitation
 - (C) Radiation
 - (D) Sound intensity
2. The sudden stoppage in flow of water in a closed conduit results in a phenomenon called
 - (A) Stack pressure
 - (B) Water hammer
 - (C) Cavitation
 - (D) Water drill
3. A simply supported beam of length 'L' carries a concentrated load of intensity '2P' at its centre. The bending moment at the centre of the beam would be
 - (A) $PL/2$
 - (B) $PL/4$
 - (C) $PL/6$
 - (D) $PL^2/8$
4. The 'Munsell system' is used to determine the
 - (A) equal distribution of weight
 - (B) classification of surface colour
 - (C) sound absorbance in an enclosed space
 - (D) None of these
5. 'Usonian' houses were designed by
 - (A) Robert Venturi
 - (B) Frank Lloyd Wright
 - (C) Le Corbusier
 - (D) J. A. Stein
6. Which one of the following is responsible for 'bulking of sand' ?
 - (A) Radiation
 - (B) Moisture
 - (C) Fly ash
 - (D) None of these



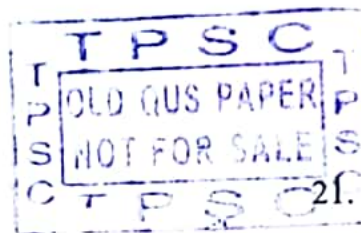
7. The difference between wet bulb temperature and dry bulb temperature is called
 - (A) Dry bulb depression
 - (B) Wet bulb depression
 - (C) Atmospheric depression
 - (D) Relative fall
8. The term 'weep hole' is used to describe
 - (A) leakage in plumbing system
 - (B) holes in retaining wall for draining water
 - (C) holes dug to recharge the ground water
 - (D) perforation in the tree trunk
9. Which one of the following does not appear in a psychrometric chart ?
 - (A) DBT
 - (B) WBT
 - (C) Relative humidity
 - (D) Wind speed
10. During Greek period of architecture, the 'Hippodrome' was used for
 - (A) counciling
 - (B) chariot racing
 - (C) marketing
 - (D) election process
11. As per IS 456-2000 the maximum area of tension reinforcement in a RCC column shall not exceed $x\%$ of its cross-sectional area, where x is equal to
 - (A) 2
 - (B) 4
 - (C) 6
 - (D) 8
12. The term Municipal Solid Waste (MSW) is generally used to describe
 - (A) wastes from industries
 - (B) wastes from private houses and commercial establishments
 - (C) Mining waste
 - (D) Agricultural waste
13. The face of an Icosahedron is
 - (A) Equilateral triangle
 - (B) Isosceles triangle
 - (C) Square
 - (D) Pentagon
14. The "Gantt chart" does not provide information about
 - (A) List of jobs
 - (B) Duration of jobs
 - (C) Progress of work
 - (D) Interdependency of jobs

15. The information that is not essential to be submitted for sanction of any building plan / construction permission

- (A) Site plan
- (B) Floor plans
- (C) Tittle deed
- (D) Land cost

16. Which of the following generates heat island ?

- (A) Coastal areas
- (B) Urban areas
- (C) Wetlands
- (D) Forest areas



17. Which of the following structure can be marked as 'pre-historic' structure ?

- (A) Mastaba
- (B) Pylon
- (C) Stoneheuge
- (D) Stoa

18. A neighbourhood with a total area of 300 hectares has a gross density of 300 persons per hectare (pph). If the residential area is 60% of the total area, then net density (in pph) of the neighbourhood is

- (A) 300
- (B) 500
- (C) 750
- (D) 600

19. Natural granite used for flooring in buildings belongs to the category of

- (A) Igneous rock
- (B) Acid rock
- (C) Sedimentary rock
- (D) Metamorphic rock

20. In water supply system, the 'check valve' or 'Reflux valve' allow water

- (A) to flow in one direction
- (B) to flow in multiple direction
- (C) to flow under high pressure only
- (D) to flow under low pressure

21. Match the elements of Buddhist Stupa in group-I with their traditional names in group-II.

GROUP-I	GROUP-II
P. Dome/hemisphere	1. Vedita
Q. Railing	2. Anda
R. Entrance Gate	3. Harmika
S. Portion above dome	4. Torana
	5. Nagara

- (A) P-2, Q-3, R-4, S-1
- (B) P-2, Q-5, R-4, S-3
- (C) P-2, Q-1, R-4, S-3
- (D) P-5, Q-1, R-2, S-3

22. The term 'Ziggurat' is related to

- (A) Roman Architecture
- (B) Egyptian Architecture
- (C) Assyrian Architecture
- (D) Gothic Architecture

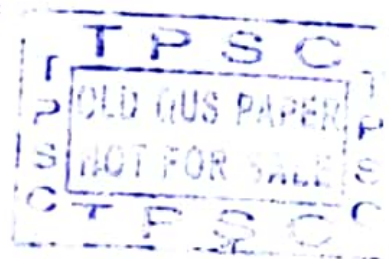
23. In AUTOCAD, a line of infinite length in the direction defined by the starting point and through point is known as
 (A) RAY
 (B) LINE
 (C) PLINE
 (D) XLINE
24. As per National Building Code, the minimum width of a tread without nosing for a residential building is
 (A) 300 mm
 (B) 250 mm
 (C) 230 mm
 (D) 280 mm
25. Identify Pozzolana from the following materials
 (A) Sand
 (B) TMT bar
 (C) Fly ash
 (D) Surkhi
26. The lowest intensity perceived as sound by human ear is equivalent to
 (A) 10 watt/m²
 (B) 1pico watt/m²
 (C) 0.01 watt/m²
 (D) 1 watt/m²
27. Consistency of cement is measured by
 (A) Pycometer
 (B) Slump cone
 (C) UTM machine
 (D) Vicat's apparatus
28. Identify the odd one among the following
 (A) Security deposit
 (B) Professional tax
 (C) Performance bank guarantee
 (D) Earnest money
29. The intensity of light source is measured in units of
 (A) Apostilb
 (B) Candela
 (C) Lumen
 (D) Flux
30. The name of the first garden city is
 (A) Radburn
 (B) Letchworth
 (C) Detroit
 (D) Chandigarh

31. Identify the object with which the EXPLODE command in AUTOCAD can be used
 (A) Polyline
 (b) arc
 (C) line
 (D) None of these
32. 'U-value' is the measure of
 (A) thermal transmittance of building components
 (B) ultra violet radiation
 (C) infra red radiation
 (D) the rate of ventilation through an opening
33. The age of a tree is generally determined by
 (A) counting the number of rings in the stem cross-section
 (B) counting the number of leaves on the main branch
 (C) measuring the height of the tree
 (D) measuring the canopy circumference of the tree
34. The Pritzker Prize 2017 has been awarded to
 (A) Rafael Aranda
 (B) Jean Nouvel
 (C) Peter Zumthor
 (D) Zaha Hadid
35. The concept of 'serial vision' was conceived by
 (A) Gordon Cullen
 (B) Edwin Lutyen
 (C) Luis H. Sullivan
 (D) Norman Foster
36. 'Black Pagoda' is another name of
 (A) Shore temple, Mahabalipuram
 (B) Sun temple, Konark
 (C) Vipassana Pagoda, Mumbai
 (D) Gol Gumbad, Bijapur
37. Toothing is a construction technique used in
 (A) Wood construction
 (B) Steel construction
 (C) RCC construction
 (D) Brick masonry
38. The maximum number of points which can be snapped in a circle using OSNAP command is
 (A) 2
 (B) 5
 (C) 4
 (D) 1



39. A point load 5 KN acts at mid-span of a 4m long cantilever. Shearing force at free end shall be
- (A) 0 KN
 - (B) 3 KN
 - (C) 10 KN
 - (D) 2.5 KN
40. Development authorities in India are established under the provision of
- (A) Municipal Act
 - (B) 74th Constitutional Amendment Act
 - (C) Town and Country Planning Act
 - (D) Land Acquisition Act
41. In case of a spiral stair the central post is often termed as
- (A) Newel
 - (B) Stringer
 - (C) Riser
 - (D) Winder
42. Rajiv Awas Yojana of Ministry of Housing, Government of India addresses housing for
- (A) Higher income group
 - (B) Middle income group
 - (C) Low income group
 - (D) Slum dwellers
43. Which of the following is a secondary colour ?
- (A) Red
 - (B) Blue
 - (C) Orange
 - (D) None of these
44. Find out the most suitable code book for designing steel structure in general practise
- (A) IS : 1893-2002
 - (B) IS : 4326 - 1993
 - (C) IS : 456 - 2000
 - (D) IS : 800 - 2007
45. The capital town of Gandhinagar has been planned by
- (A) Le Corbusier
 - (B) H. K. Mewada
 - (C) B. V. Doshi
 - (D) Jai Singh
46. Most common cause of 'Blue baby syndrome' is the presence of
- (A) Nitrates in drinking water
 - (B) Carbon particles in the air
 - (C) Ultra-violet ray in sunlight
 - (D) Sulphates in the vegetables

47. Which of the following landscape does not follow a formal or symmetrical layout?
- (A) Mughal garden
 - (B) Japanese garden
 - (C) French garden
 - (D) Italian garden
48. The term 'by pass factor' is related to
- (A) Air conditioning
 - (B) City road network system
 - (C) Brickwork joining
 - (D) Metabolism
49. A site map is drawn to scale of 1 : 10000 measures 50 sq cm. The actual area of the site in hectares is
- (A) 120
 - (B) 50
 - (C) 500
 - (D) 250
50. Repeatability of elements after certain interval may be expressed as
- (A) Occult balance
 - (B) Scale
 - (C) Harmony
 - (D) Rhythm
51. 'Flying buttress' is a unique characteristic of
- (A) Roman Architecture
 - (B) Greek Architecture
 - (C) Gothic Architecture
 - (D) Byzantine Architecture
52. Most suitable area / space for car parking may be provided as
- (A) 2.5m × 5m
 - (B) 4m × 7m
 - (C) 2m × 3m
 - (D) None of these
53. "Mahenjo-daro and the Indus civilization" was written by
- (A) Raj Rewal
 - (B) Vitruvius
 - (C) John Marshall
 - (D) Patrick Geddes
54. The city centre, Salt lake, West Bengal was designed by
- (A) Charles Correa
 - (B) Habib Rahman
 - (C) Rabindra Banerjee
 - (D) Sanjay Puri



55. The structure of the Geodesic dome developed by R. B. Fuller was based on

- (A) Triangular elements
- (B) Square elements
- (C) Hexagonal elements
- (D) Pentagonal elements

56. In case of M20 nominal mix concrete the ratio of the mix (by volume) is cement : sand : coarse aggregate =

- (A) 1 : 2 : 4
- (B) 1 : 3 : 6
- (C) $1 : 1\frac{1}{2} : 3$
- (D) 1 : 1 : 2

57. The Royal Palace of Tripura situated in Palace compound, Agartala was named as 'Vyjayanta Palace'. This name was given by

- (A) Rabindranath Tagore
- (B) Maharaja Radha Kishore Manikya
- (C) Maharaja Bir Bikram Manikya
- (D) None of them

58. The architect of Lotus Temple, New Delhi was

- (A) Fariborz Sabha
- (B) Moshe Safdie
- (C) Raj Rewal
- (D) B. V. Doshi

59. In the context of 'stages of development of town', the term "Epulis" means

- (A) Town
- (B) City
- (C) Dead city
- (D) Village

60. Grey water can't be used for

- (A) drinking purpose
- (B) watering plants
- (C) flushing toilets
- (D) irrigation purpose

(Space for rough work)

